

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056020

Luminaire Tested: S124R3DR-S350D927-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056020
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S350D927-X4F0-XX-UDD-FLL-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

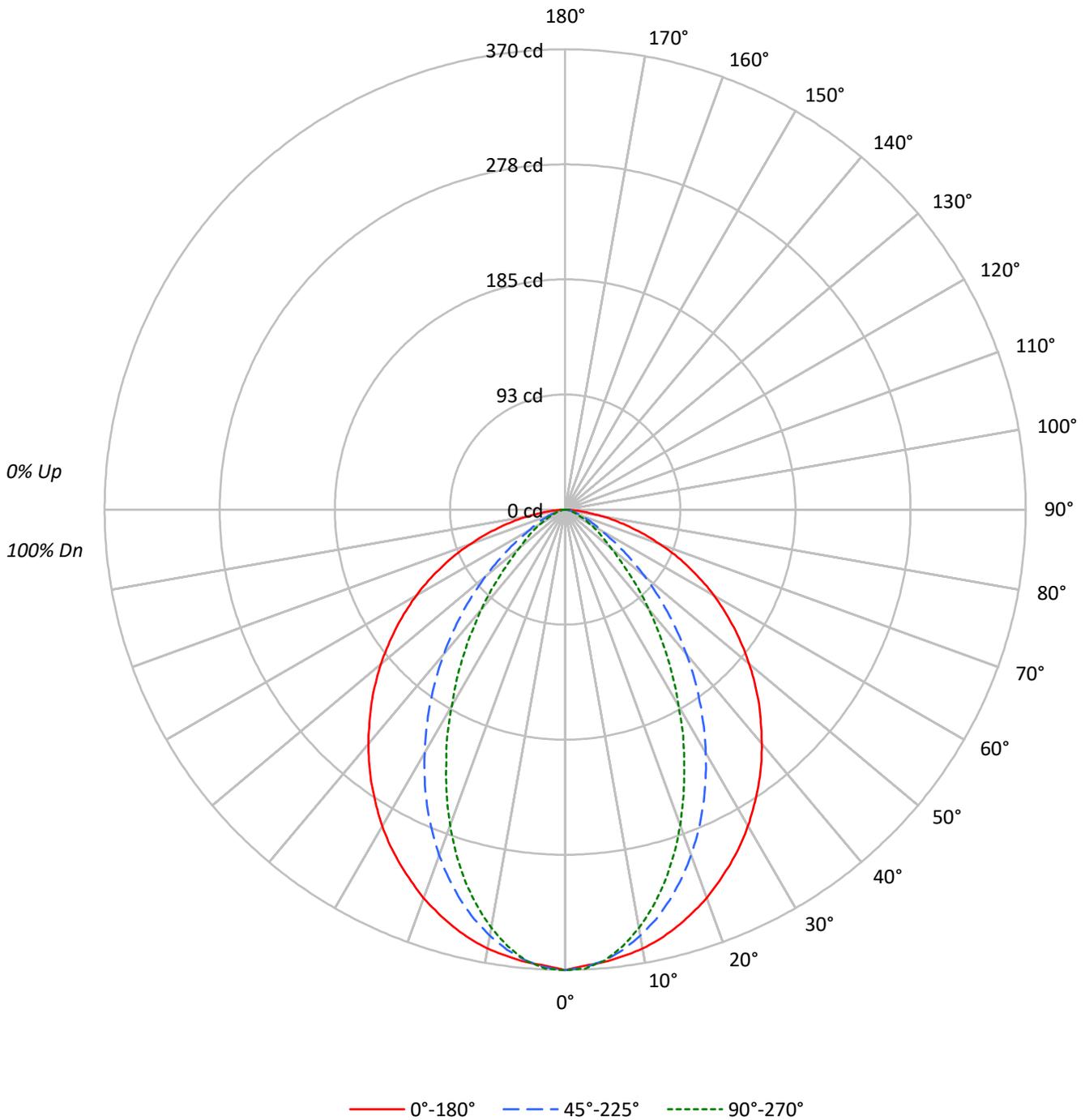
Lumens per Lamp: N/A
Luminaire Lumens: 598.8 lumens
Efficiency: N/A
Efficacy: 47.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





TEST NUMBER: P1056020

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|-----|
| RF | 20 | | | | | 20 | | | | | 20 | | | | | 20 | | | | | 20 | |
| RC | 80 | | | | | 70 | | | | | 50 | | | | | 30 | | | | | 10 | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | 100 |
| 1 | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 94 | 92 | 90 | 89 | | | | 89 |
| 2 | 103 | 96 | 91 | 86 | 101 | 94 | 89 | 85 | 91 | 87 | 83 | 88 | 84 | 81 | 85 | 82 | 79 | 78 | | | | 78 |
| 3 | 95 | 87 | 80 | 74 | 93 | 85 | 79 | 74 | 82 | 77 | 73 | 80 | 75 | 71 | 77 | 73 | 70 | 68 | | | | 68 |
| 4 | 89 | 78 | 71 | 65 | 86 | 77 | 70 | 65 | 75 | 69 | 64 | 73 | 67 | 63 | 71 | 66 | 62 | 60 | | | | 60 |
| 5 | 82 | 71 | 64 | 58 | 80 | 70 | 63 | 58 | 68 | 62 | 57 | 66 | 61 | 56 | 65 | 60 | 56 | 54 | | | | 54 |
| 6 | 77 | 65 | 57 | 52 | 75 | 64 | 57 | 52 | 63 | 56 | 51 | 61 | 55 | 51 | 60 | 54 | 50 | 48 | | | | 48 |
| 7 | 72 | 60 | 52 | 47 | 70 | 59 | 52 | 47 | 58 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 44 | | | | 44 |
| 8 | 67 | 55 | 48 | 42 | 66 | 55 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 51 | 46 | 42 | 40 | | | | 40 |
| 9 | 63 | 51 | 44 | 39 | 62 | 51 | 44 | 39 | 50 | 43 | 39 | 49 | 43 | 38 | 48 | 42 | 38 | 37 | | | | 37 |
| 10 | 60 | 48 | 41 | 36 | 59 | 47 | 40 | 36 | 46 | 40 | 36 | 45 | 40 | 35 | 45 | 39 | 35 | 34 | | | | 34 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 3274 | 3274 | 3274 |
| 5° | 3240 | 3229 | 3229 |
| 10° | 3217 | 3123 | 3065 |
| 15° | 3178 | 2973 | 2834 |
| 20° | 3127 | 2783 | 2540 |
| 25° | 3064 | 2560 | 2207 |
| 30° | 2999 | 2305 | 1859 |
| 35° | 2922 | 2036 | 1529 |
| 40° | 2837 | 1747 | 1206 |
| 45° | 2751 | 1453 | 902 |
| 50° | 2656 | 1143 | 659 |
| 55° | 2551 | 845 | 526 |
| 60° | 2438 | 585 | 403 |
| 65° | 2293 | 454 | 295 |
| 70° | 2076 | 321 | 233 |
| 75° | 1814 | 225 | 178 |
| 80° | 1456 | 173 | 158 |
| 85° | 801 | 142 | 142 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2751 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 34.3 | 5.7 |
| 10°-20° | 91.8 | 15.3 |
| 20°-30° | 122.4 | 20.4 |
| 30°-40° | 123.3 | 20.6 |
| 40°-50° | 101.1 | 16.9 |
| 50°-60° | 69.1 | 11.5 |
| 60°-70° | 38.6 | 6.4 |
| 70°-80° | 15.3 | 2.6 |
| 80°-90° | 2.9 | 0.5 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 248.5 | 41.5 |
| 0°-40° | 371.8 | 62.1 |
| 0°-60° | 542.0 | 90.5 |
| 0°-90° | 598.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 598.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 370 | 370 | 370 | 370 | 370 | |
| 5° | 365 | 369 | 364 | 362 | 364 | 35 |
| 15° | 347 | 343 | 325 | 313 | 310 | 98 |
| 25° | 314 | 299 | 262 | 236 | 226 | 145 |
| 35° | 271 | 242 | 189 | 153 | 142 | 169 |
| 45° | 220 | 180 | 116 | 82 | 72 | 170 |
| 55° | 166 | 116 | 55 | 36 | 34 | 148 |
| 65° | 110 | 55 | 22 | 16 | 14 | 108 |
| 75° | 53 | 14 | 7 | 6 | 5 | 57 |
| 85° | 8 | 1 | 1 | 1 | 1 | 11 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1056020

CATALOG NUMBER: S124R3DR-S350D927-X4F0-XX-UDD-FLL-S

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 370.3 | 370.3 | 370.3 | 370.3 | 370.3 |
| 2.5° | 366.9 | 371.4 | 368.3 | 368.6 | 369.3 |
| 5° | 365.1 | 369.3 | 363.8 | 362.0 | 363.8 |
| 7.5° | 362.0 | 365.1 | 356.9 | 353.4 | 354.1 |
| 10° | 358.3 | 359.3 | 347.9 | 342.0 | 341.4 |
| 12.5° | 353.4 | 352.0 | 337.2 | 328.6 | 326.5 |
| 15° | 347.2 | 343.4 | 324.8 | 313.4 | 309.6 |
| 17.5° | 340.0 | 333.4 | 311.0 | 296.2 | 290.7 |
| 20° | 332.4 | 322.7 | 295.8 | 276.9 | 270.0 |
| 22.5° | 323.4 | 311.4 | 279.6 | 256.5 | 248.6 |
| 25° | 314.1 | 298.6 | 262.4 | 235.8 | 226.2 |
| 27.5° | 304.5 | 285.5 | 244.5 | 214.8 | 205.2 |
| 30° | 293.8 | 271.4 | 225.8 | 193.8 | 182.1 |
| 32.5° | 282.4 | 256.9 | 207.2 | 173.1 | 162.1 |
| 35° | 270.7 | 242.1 | 188.6 | 152.7 | 141.7 |
| 37.5° | 258.6 | 226.9 | 170.0 | 133.4 | 122.4 |
| 40° | 245.8 | 211.4 | 151.4 | 115.2 | 104.5 |
| 42.5° | 232.7 | 195.5 | 133.4 | 97.9 | 87.9 |
| 45° | 220.0 | 179.6 | 116.2 | 81.7 | 72.1 |
| 47.5° | 206.5 | 163.8 | 99.3 | 66.5 | 58.3 |
| 50° | 193.1 | 147.9 | 83.1 | 53.4 | 47.9 |
| 52.5° | 179.3 | 132.1 | 68.3 | 43.8 | 40.0 |
| 55° | 165.5 | 116.2 | 54.8 | 36.5 | 34.1 |
| 57.5° | 151.7 | 100.3 | 42.4 | 31.0 | 28.3 |
| 60° | 137.9 | 84.8 | 33.1 | 25.2 | 22.8 |
| 62.5° | 123.8 | 69.3 | 27.2 | 20.0 | 17.9 |
| 65° | 109.6 | 55.2 | 21.7 | 15.5 | 14.1 |
| 67.5° | 95.5 | 42.1 | 16.6 | 12.1 | 11.0 |
| 70° | 80.3 | 30.0 | 12.4 | 9.3 | 9.0 |
| 72.5° | 67.2 | 20.3 | 9.0 | 7.2 | 6.9 |
| 75° | 53.1 | 14.5 | 6.6 | 5.5 | 5.2 |
| 77.5° | 41.0 | 9.3 | 4.8 | 4.5 | 4.1 |
| 80° | 28.6 | 5.2 | 3.4 | 3.1 | 3.1 |
| 82.5° | 17.6 | 2.8 | 2.4 | 2.1 | 2.1 |
| 85° | 7.9 | 1.4 | 1.4 | 1.4 | 1.4 |
| 87.5° | 1.4 | 0.7 | 0.7 | 0.7 | 0.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)